The Fortnightly
REVIEW
of
THE CHICAGO DENTAL SOCIETY
July 15, 1957 *Volume 34 • Number 2*

CHICAGO DENTAL SOCIETY GOLF OUTING

Our Annual Golf Outing of the Chicago Dental Society was held on Wednesday, June 19th, 1957, at the Glendale Country Club in Bloomingdale, Illinois. After three days of hot and humid weather, the day of the Outing turned out to be a beautiful sunny day with the temperature in the low eighties—a perfect day for the affair. One hundred members and guests tried their luck on the golf course; eight others enjoyed an afternoon of relaxation just watching the fun, chatting and refreshing themselves occasionally with a cooling libation while awaiting the dinner and the evening festivities.

In the absence of our President, Walt Dundon, who was attending an American Dental Trade Association meeting in Hot Springs, Virginia, Vice President Jim Lynch took charge of the evening affair by welcoming all present and reading wires received from President Dundon and Past Presidents Sam Kleiman and Glenn Cartwright. As most of you know, the latter two are recovering from illnesses and we are happy to report are coming along in fine fashion. After those seated at the head of the table were introduced, the officers and directors of the Society and their guests, Golf Chairman Basil Cupis and two of his committee members, Chairman Cupis took over and awarded the prizes for the affair. Three prizes were awarded for the Blind Bogey. The first prize of $36 was a four way split between Drs. Wm. Semiloff and Allan Rubin and two guests, Kisla and Hamlin. Second Blind Bogey prize of $24 was a six way split between Drs. O. E. Scott, J. S. Owen, I. Tashiro and Ben Misantoni, and guests Jungren and Olin. The third prize of $15 was a five way tie, Drs. J. Webster, Joe Porto and Ed Laskowski splitting with guests L. E. Hill and P. J. Stransky. The President's Cup was next awarded to the dentist with low gross, Dr. Burt Morrow, with a low gross of 80. Dr. Eugene Mason was runner-up with an 81. The next prize, going to the guest with low gross, went to guest Jungren with a 72. In the Peoria system, first prize went to Don Casey, second to G. Ascherman and third to a guest, E. M. Lange. Ed Mauter was then selected to award the rest of the prizes by drawing from a hat, so there were prizes for all.

Mr. Henry Huntington of Huntington & Homer, and his sales staff, worked very hard all day at the 6th hole determining the shot closest to the pin. D. K. Olin, a guest, was the closest with 14′6″, followed by Dr. Ralph Berenson with 14′8″, Dr. T. J. McAuliffe with 21′6½″ and Dr. Don Wise with 25′1″. A job well done, Henry! Each one attending the Outing received a very nice billfold with the compliments of the Society.

All present enjoyed the fine roast beef dinner and agreed it had been a wonderful day all around. Congratulations to Chairman Cupis and the two men of his committee who actually helped to make the Outing a real day of fun. Don't miss it next year—you'll be passing up an opportunity to have a great day out in the open with your friends and colleagues.

Orville (Country) Larsen

ETHICS

The Science that Treats of the Principles of Human Morality and Duty

By Harold C. Drummond, Chairman, Ethics Committee

The assets of a successful dentist are many, but those he cherishes the most are the respect of his fellow practitioners and the high esteem of the citizens of the community in which he conducts his practice.

The Board of Directors of the Chicago Dental Society, cognizant of the value of these assets, and believing that a practice should be built up through satisfactory service and good ethical conduct of its members, set up the Code of Ethics with the belief that if each member will live up to its provisions to the best of his ability, he will not only command the respect and esteem of the citizens of his community but of his fellow practitioners as well.

The Board of Directors recognizing that the Code is of little value unless its provisions are enforced, made it mandatory upon the Ethics Committee to recommend suspension of a member for at least six months if found guilty of a violation (after proper hearing) of the Code, and expulsion from the Society for failure to correct the violation.

So it behooves every member, if he is contemplating opening an office, changing location, adding signs, or any move that might place him in conflict with the Code, to study its provisions.

Ignorance of the Code does not carry much weight with the Ethics Committee.

The prestige of the Chicago Dental Society is so dependent upon the ethical conduct of its members that space is going to be provided in future issues of the FORTNIGHTLY REVIEW referring to recommendations to the Board of Directors by the Ethics Committee on applications for membership, violations of the Code or any other matters that may properly come before the committee. No names will be used, but it is hoped that through this type of publicity and education members will become aware, more than ever, that their success and the prestige of the Chicago Dental Society is greatly enhanced by good ethical conduct, not only toward their fellow practitioners, but the public as well.

PUBLIC AID FEE SCHEDULE

The fee schedule on opposite page is another result of hard work on the part of the committee of the Society which deals with public aid and another example of the many problems with which the Society deals with little or no fan-fare or much recognition and yet a problem on which countless hours were spent in order that an adequate fee might be obtained. I say adequate not in the sense that it is equal to the normal fee but rather a fee which compensates in part for a service rendered those unable to afford dental service. Thus we are able to render to these people a satisfactory service without undue burden on the dentist who renders the service. No doubt there will be some who feel they are inadequate but keep in mind that the men who worked on this problem are men like you and me and have done their very best. Therefore if each of us would take on our fair share of these folks we will have discharged our professional responsibility to those in need and helped to spread the load. File this schedule so that you may be familiar with it.

DENTAL FEE SCHEDULE

Accepted by Illinois Public Aid Commission

Effective July 1, 1957

Operative Dentistry	
Emergency treatment for relief of pain	$ 3.00
Fillings	
Copper cement	3.00
Amalgam	
One surface	3.00
Two surfaces	5.00
Three or more surfaces	8.00
Synthetic porcelain	4.00
Re-cement inlay or crown	3.00
Re-cement bridge	4.00
Prophylaxis	
First treatment	4.00
Additional treatment	3.00
Total	10.00
X-Rays	
Single film	1.00
Subsequent films	.50
Full mouth series	5.00
Minor Surgery	
Anesthesia, general, in office (no charge for local)	4.00
Extraction, simple	
First	3.00
Additional	2.00
Total	45.00
Impacted tooth	8.00—25.00
Post operative treatment (more than one requires prior approval)	2.00
Prosthetic Dentistry	
Bridge work—per unit	
Abutment, gold casting or wrought metal	20.00
Pontic, gold & porcelain; porcelain & gold acrylic	15.00
Acrylic dentures	
Full upper or lower	65.00
Partial upper or lower	60.00
Wire clasps—each	9.00
Repair of acrylic dentures	
Processing	10.00
Replacing tooth—each, plus processing	2.00
Adding tooth—each, plus processing	7.00
Rebasing—including processing	20.00
Duplicating—including processing	25.00
Consultation, Examination, Home Care	
Consultation or examination	5.00
Emergency care in the home	4.00

NEWS AND ANNOUNCEMENTS

THANK YOU

Dr. Sam Kleiman and his charming wife visited the Central Office last week and we're happy to report that Sam is well along the way to recovery from his recent heart attack and eager to get back to his office. Tanned and trim he is a walking example of what modern knowledge of cardiac care can mean to all of us. Dr. and Mrs. Kleiman would like to have us pass on to the many friends and well-wishers who wrote and called when he was in the hospital their deep appreciation for your thoughts and kind expressions. Their hope is to someday thank everyone in person but it is a pretty large task right at the moment.

DID YOU SEE THIS?

DENTAL PLATE LABORATORY* OWNER IS FINED $200

Mrs. Molly A. May, owner of the Chicago Dental Plate Laboratory and Chicago Dental Reliner service, 30 N. Dearborn street, was fined $200 yesterday by Judge Abraham L. Marovitz of Superior Court. She had violated an injunction issued on Dec. 17, 1956, against 24 dental laboratory owners barring them from dealing directly with the public.

Judge Marovitz said that jail sentences would be imposed if there were more violations of the court's injunction.

Among the witnesses against Mrs. May was Edgar T. Stephens, 5120 Grand Ave., Downers Grove, program director of the Chicago Dental Society and special investigator of the Illinois state department of registration and education. He testified that Mrs. May examined his mouth on May 28, recommended extraction of a tooth, and offered to sell him a partial denture for $90.

*From the Chicago Tribune of July 2, 1957.

SEVEN NEW INJUNCTIONS

Superior Court Judge George Fisher on Monday, June 4 signed an Injunction Decree against seven persons permanently enjoining them from violating the Illinois Dental Practice Act. This brings the total number of injunctions to 31 and it is not a secret that others are in the making. The Legislative and Law Enforcement Committee is to be congratulated for its vigilance and tenacity in continuing to press action against those who violate the Act.

Those who were enjoined by Judge Fisher are Belden Clyde, Mary Clyde, and Minas Aretos—all associated with the Tru-Tone Dental Laboratory at 127 North Dearborn Street; Andrew Dancho of the Dancho Dental Laboratory, 2605 South Kedzie; Joseph Dobner, Manny M. Urkoff; and Jack White who was arrested while employed at the Cleveland Dental Laboratory at 2326 Cicero Avenue.

A.D.A. SCIENTIFIC PROGRAM OUTLINED

A number of comprehensive sessions on various aspects of dentistry will be presented on the scientific program at the 98th annual session of the American Dental Association to be held Nov. 4-7 in Miami-Miami Beach.

There will be a two-day forum on dental practice, including efficient office administration, use of auxiliaries, high speed instruments and group practice. There will be a full-day forum on local and general anesthesia in the dental office and another one on complete dentures.

All portions of the scientific program will be held in Dinner Key Auditorium in Miami. Applications for hotel accommodations should be made on the official application form appearing in THE

(Continued on page 28)

EDITORIAL

Victory Is Again Ours

Just about two years ago at this time, the Editor wrote regarding the victory won by the profession and those who would protect the health and welfare of the people of the State of Illinois from those who would foist upon them second rate and illegal dentistry. At the most recent session of the Legislature these men again had a Denturist Bill, No. 1027, introduced. This, in spite of the fact that these men have been found guilty of the illegal practice of dentistry and of violation of the Dental Practice Act of the State and were enjoined from any further violations and from doing business directly with the public. This ruling of the Superior Court was sustained by the Supreme Court of Illinois which also upheld the validity of the Act. In the appeal to the Supreme Court of the United States, review was denied and the violators enjoined.

Unlike our legislative experience of two years ago, the Bill did not reach the floor of the House because an alert, aroused and informed profession, by keeping the legislators advised as to the dangers to health and welfare of the public, were able to keep it in committee. Our experience of two years ago with Bill 1118 taught us that preparedness and eternal vigilance must be our watchword and so we are able to impress on the legislators the dangers inherent in Bill 1027.

Now is our opportunity to express to the legislators who have served the public interests so well our sincere appreciation for a job well done. Write to every representative and senator from your District and tell him how grateful we are for his fine cooperation. Tell him that 5500 other members of the dental profession join you in this expression of appreciation. Then from time to time keep in touch with these men and offer to aid them in their efforts to serve the best interests of their people. Above all, let them know that you have complete confidence in them to do all in their power to protect the health and welfare of the people of Illinois in the future.

Each of us should keep in mind that as members of this fine profession we have a special trust to provide a satisfactory health service to those intrusted to our care. If we hold high the torch of dedicated service and are vitally concerned with the welfare of our people, bills like 1118 and 1027 will never be passed.

Again I urge every member, whether or not he be a personal friend of the legislator, to be sure to write to him and thank him. DO IT RIGHT NOW.

Just one other thing: Do your best to keep informed and abreast of the problems which confront dentistry. Only an alert, informed, dedicated and concerned profession can render the best possible health service. This can only be brought about by attending your dental meetings, reading the dental literature and taking your rightful place in community affairs.

To the members of the Society who have again given more than their fair share to see that the best interests of all are served, a very big "Thank you" for a job well done.

GUILTY OF INJUNCTION VIOLATION

The Honorable A. L. Marovitz, Judge of the Superior Court of Cook County, on Monday, July 1, 1957, found Mrs. Molly A. May, owner and operator of the Chicago Dental Plate Laboratory and the Dental Plate Reliner Service, both at 30 North Dearborn Street, Chicago, guilty of violating the Injunction Decree which was signed on December 17, 1956. Molly May was found guilty of owning and operating a place where dental services illegally were offered to and rendered for the public.

A *bona fide* customer witness of this laboratory and an investigator for the Chicago Dental Society both testified and presented evidence in court which resulted in the decision of "Guilty." In rendering his decision Judge Marovitz, in reference to the Illinois Dental Practice Act, said: "THIS IS THE LAW OF THE STATE OF ILLINOIS. YOU ARE BOUND BY IT, NOT ONLY BY THE STATUTE, BUT BY THE DECREE OF THE COURT IN WHICH YOU ARE PARTY DEFENDANT. Because this is the first violation that has been brought to my attention, I am going to impose the minimum fine of Two Hundred Dollars, but I am going to give you this admonition, and I am as serious about it as about anything I have ever said from the Bench—if you are back here again and I find you guilty of violation of the decree, I will have no alternative but to send you to jail, AND I WILL SEND YOU TO JAIL."

Judge Marovitz continued: "I know other people in the trade are watching this case, wanting to know what is going to happen to you. I don't want you to think the fact that I imposed this minimum fine in your case is an indication I will do likewise in any other case. As a matter of fact, I want them to know through this case, that if I do find anyone else guilty of violation of this decree in the future, I will send somebody to jail, because this serves notice not only on you, but on every defendant who is a party to this decree. We have given them ample time to get their house in order."

Judge Marovitz continued: "The statute prescribes, and the decree is sufficiently informative to let you know what you can do and what you can't do. There is no excuse in your coming in here and saying you did not know or did not understand. I want to let you know and your former associates know that my imposing a minimum fine will be no criteria of what I will do in the future."

In testifying in her own defense, Molly May alleged that she had sold her dental laboratory to a dentist and that she had remained there merely as a dental assistant.

As a result of his unprofessional association with Molly May, the Chicago Dental Plate Laboratory and the Dental Plate Reliner Service, this dentist was brought before the State Board of Dental Examiners on a license revocation charge on June 24, 1957, where the case is pending. In the January 1957 issue of the FORTNIGHTLY REVIEW a warning was issued to all dentists that their association with an enjoined dental laboratory would result in license revocation charges. The Legislative and Law Enforcement Committee informs us that a number of investigations have been completed and that other dentists soon will be brought before the State Board of Dental Examiners.

SUMMERTIME THOUGHT

Good will is as fragile as an orchid; valuable as a gold nugget, and as hard to get; productive as a large machine, and as hard to build; vigorous as youth and as hard to keep.

Modern Methods of Shaping Cavities in Teeth*

F. A. Peyton, D.Sc., Ann Arbor, Michigan

(Dr. Floyd A. Peyton has studied and written on such restorative materials as dental resins, casting alloys, amalgam, cements and the behavior of rotating cutting instruments. At present, he is Professor of Dentistry, in charge of teaching Dental Materials, and Director of Physical Research in Dentistry at the University of Michigan, School of Dentistry.

Dr. Peyton is a member of various professional and scientific societies such as American Chemical Society, Sigma Xi, and is an Honorary Life member of the American Dental Association and the Michigan State Dental Society. He has appeared before numerous dental societies throughout the United States and several Latin American countries.)

INTRODUCTION

The burden of restorative dentistry in the form of gold inlays, amalgam and silicate restorations, and even such specialties as crown and bridge restorations, rests largely as a responsibility of the general practitioner of dentistry. The general practitioner, therefore, is interested and concerned about all the new methods, technics, or facilities in restorative dentistry which will make the operation more pleasant and safe for his patients and less of a strain on himself. The advancements, refinements, and developments in this field are numerous and varied as all dentists are well aware. This is a most fortunate condition for dentistry generally, because it indicates that the profession, and each phase of the science of dentistry, is alert, active, and dynamic. If it were not so, dentistry would be static in its development, and lack the progress and improvement which has characterized the profession in recent years.



Dr. Peyton

The past ten years are generally recognized as being the most active period in the history of dentistry for the development and refinement of methods and instruments to shape cavities in teeth to receive restorations. The recent developments in the methods for shaping cavities in teeth have been accompanied by much research and experimentation. Still more is needed. It is believed that the general practitioner has respect for those who have conducted these studies, whether they be clinical investigations on instrumentation, animal experimentation, manufacturing development, or physical studies of temperature changes, vibration characteristics, or the life and effectiveness of various instruments operated under different circumstances. The results of such studies can give the practitioner an assurance and a degree of confidence which he otherwise would be slow to gain. In general, it is believed that most busy dentists do not wish to be involved in extensive experimentation with first one instrument, technic or material, and then another. It is believed further that many dentists in general practice do not subscribe to the philosophy that each dentist should have available in his operating room each of the instruments and devices which are currently available for use in cutting tooth tissue, regardless of the frequency or extent to which he might profitably use such an instrument.

Probably there are at least four major factors which will concern most dentists when making a selection of an instru-

*Presented before the 92nd Midwinter Meeting, Chicago Dental Society, February 4, 1957.

ment to cut tooth tissue. The four items to look for in such an instrument would be: function, flexibility, practicality, and simplicity. If an instrument is limited in its function to a few specific operations, to use in restricted areas of the mouth, or to certain portions of the preparation, it may be questioned if it is the instrument of first choice for general use in shaping cavities. The obvious exception is the instrument, such as a bur or hand instrument, which is designed and recommended for only one specific operation. Generally, the greater the flexibility of the instrument in performing a wide variety of different types of operations, over a range of conditions, the more serviceable it will be. Many factors enter into a consideration of the practical aspects of the instrument, which will vary greatly with different human interests and desires. Under this heading might be placed such items as maintenance, operating life, space requirements, and many other related factors. Simplicity in equipment and instruments is always appealing, not only in construction and design, but also in operation and function. Some instruments are lacking in one or more of these qualities. Others are lacking in all four.

In spite of certain apparent shortcomings, some dentists appear to find it a sincere pleasure and satisfaction to use any one instrument that may be suggested for the purpose of cutting tooth tissue. On the other hand, many fine operators in general practice will not share this high degree of enthusiasm. Their reasons will be many and varied, but always very real in nature for that individual. On this basis, it is suspected that no one instrument, method or device is superior to all others for all members of the profession. It should be recognized that an item which is highly satisfactory to one operator, in a given type of practice, and used under a specific set of circumstances, may have little appeal to another equally capable dentist who, for a variety of reasons, operates under a totally different set of conditions. The dentist who displays some degree of judgment and caution, therefore, in his selection and use of modern methods is to be congratulated.

With the introduction of new instruments and handpieces, there has been some change in technic of operation. Changes have occurred in the choice of instrument, the rate of cutting, and the care given the equipment. It is encouraging to observe, however, that there has been little change in attitude regarding what constitutes sound basic operative practice. As has been stated before,[1] "it is believed that the dentist desires to remove a maximum of tooth tissue in a minimum time, with a minimum of damage to the remaining tissue, and a minimum of discomfort to the patient. At the same time, the operator wishes to produce a minimum of fatigue to himself and to preserve the most favorable physiologic conditions of operation." Any method which will accomplish these objectives effectively, yet present the practical features referred to above, should be acceptable in practice.

There are now certain trends that appear to exist in the methods for shaping cavities in teeth. These trends have resulted from the experiences gained during recent years from use of the facilities that are currently available. It is the purpose of this paper to describe some of these apparent trends. Little attempt will be made to describe in detail all the functional characteristics of different instruments, devices, and recommended technics or practices that are currently available. Time does not permit such a discussion and most of them may be seen in action in the exhibitors section of this Midwinter Meeting, or will be described by other essayists and clinicians.

MODERN METHODS AVAILABLE

The Air Abrasive Method: One of the first revolutionary changes in the method of cutting tooth tissue occurred with the introduction of the air abrasive technic. This method attracted widespread interest when first introduced because of the lack of discomfort it promised to the patient, and potential lack of damage it

offered to the pulp and remaining tooth tissue.[2-4] Some dentists continue to find the method satisfying, but others look on it as lacking somewhat in degree of function, flexibility, and simplicity.[5-7] A recent statement by Phillips and Paffenbarger[8] summarizes the air abrasive method as follows: "According to Black,[9] the air abrasive method first introduced in 1951 has been used by over 2,000 dentists. He carefully gives the advantages and disadvantages and believes it has a place in dental practice. However, time has shown that it will not be widely accepted by dentists at the present level of development." Thus, we see an instance of a method with certain potential advantages failing to attract the interest of the profession as a whole because of a lack of certain practical advantages.

The Ultrasonic Method: Since 1954 commercial and experimental models of ultrasonic devices intended for use in dentistry have been available. This method was of interest when first introduced because of the unique method of operation and potential lack of discomfort it offered the patient. In the hands of some operators the method apparently was satisfying and desirable.[10] Results of studies from the continued use of these instruments have led to conflicting reports regarding their suitability for routine dental applications. In May 1955[11] it was stated that, "Until there is sufficient evidence available in the form of published and confirmed professional and scientific reports, the Council on Dental Research (of the A.D.A.) believes it is premature for any general acceptance of the ultrasonic method of cavity preparation and of ultrasonic therapy in the treatment of oral disease. Both of these uses are in the experimental state and patients should be so advised." To the present time it is not known that this view has been changed. Approximately one year later, Lefkowitz[12] pointed out that "the ultrasonic instrument was limited in its use for cavity preparation, was slower than conventional speed rotating instruments, and was still experimental so far as technic was concerned." He and others expressed an opinion that additional investigation was necessary before adopting the ultrasonic method for clinical use. Reports[13-20] of histologic studies continue to show variations in results and conflicting opinions regarding tissue response to the method.

To the present time, an abrasive slurry is essential to use in conjunction with the vibrating ultrasonic instrument tip, and in some instances this slurry would possibly prove to be an unpleasant feature to both the patient and the operator, while in other instances it might not. In its existing form it seems probable that varying lengths of training may be required to master the technics related to the ultrasonic method, which to some dentists possibly would be an unfavorable characteristic. As yet it is not entirely clear regarding the extent to which the ultrasonic method can be adopted by the general practitioner to form conveniently and simply the wide range of cavity shapes and designs that are demanded in daily practice. It would seem, therefore, that in its present form the ultrasonic method may lack certain qualities of function and flexibility and further experimentation may be desirable.

Turbine Type Rotary Instruments: The developments and refinements in rotary type instruments have been most extensive in recent years. One of the recent interesting refinements has been the fluid turbine drive handpiece. Similar turbine driven instruments have been described during the past seventy-five years,[21-23] but it is only recently that sufficient refinements have been accomplished to permit the consideration of such an instrument as being practical.

The hydraulic-turbine handpiece has been enthusiastically presented to the profession[24,25] as an instrument capable of being operated at medium high speeds of 45,000 r.p.m. or more, free of excessive vibration and heating during operation. Phillips and Paffenbarger[8] stated in April 1956 that "The balance between the vibration factor and others such as reduced pain, rapidity of removal of enamel, simplicity of design, ease of repair and

life of the instrument will determine which of the auxiliary methods will be accepted within the next few years; the most promising at the present time appears to be the water turbine handpiece developed by Nelsen and associates."

In November 1954[26] it was stated that the fluid turbine instruments had potential uses in routine practice but perhaps the chief value was in experimental studies at high speeds. The recent developments in motor driven handpieces at ultra high speeds makes the turbine handpiece less important now than previously. For example, it is obvious from studies that the fluid turbine handpiece is an effective source of power for a rotating cutting instrument only when operated at full speed. At reduced speeds the turbine will stall rather than cut effectively. To this time, no method has been devised which will permit the turbine type instrument to have the range of speed and flexibility of operation that is characteristic of the electric motor driven handpiece. After extensive studies of this problem, it is questioned whether or not such practical features can be incorporated into the turbine powered unit, on the basis of the mechanical principles involved. With the refinements that have occurred within the past two years in belt driven handpieces, it may be debated whether or not the turbine handpiece of either air or water type offers significant advantages.

As an auxiliary device, to supplement the conventional type handpiece, some practitioners may find the turbine type instrument a satisfying adjunct to the conventional office facility. It is questioned, however, whether the existing turbine type instruments will serve as an effective replacement for the conventional handpiece for all routine operations.

Belt Drive Rotary Instruments: At the A.D.A. meeting in Miami, in November 1954,[26] a report was presented which described the then recent improvements and developments in dental handpieces which were suitable for increased speeds of rotation. The need for careful cleaning, adjustment, and lubrication of the handpieces used at high speeds was described, as well as methods then common for producing increased operating speeds. It was pointed out that ball bearing handpieces were available which could be operated at increased speeds with less power, and the development of ball bearing contra-angles seemed promising. Handpieces with improved bearing surfaces and the need for improved driving belts and engine arm pulleys were described.

It was stated that, "Further improvements in dental handpieces probably will continue. Speeds that are now considered relatively high may be considered moderate as further refinements are developed. No doubt exists that increased operating speeds with rotating instruments can be employed to the advantage of both the patient and the operator, if fundamentally sound and acceptable operating practices continue to be followed in shaping the cavity in the tooth."

In less than two years from the time these statements were published (April 1955), the profession has available not only ball bearing contra-angles (Midwest and S.S. White), but also refinements in engine motors, belts, and engine arms. In addition, there has been the development of an entirely new type of belt driven handpiece (Page-Chayes),[27-30] which when operated at from 100,000 to 200,000 r.p.m., has made the prediction come true sooner than expected, that "Speeds that are now considered relatively high may be considered moderate" with further improvements.

These recent developments have brought about the establishment of three ranges of operating speeds for rotating instruments. For convenience these might be looked on as (1) speeds below 10-15,000 r.p.m., (2) from 15,000 to 50-100,000 r.p.m., and (3) the ultra high speed which may be considered to be anything above 100,000 r.p.m. While there may be numerous good reasons for such a classification of operating speeds, one of the chief reasons is that handpieces are not designed to cover effectively the entire range of operation. Another reason for

such a classification of speed ranges is that the technics of operation, choice of instrumentation, and necessity and choice of coolants differ somewhat in the different speed ranges. Probably there is little significance to be attached to minor differences in operating speeds within each range, as for example a distinction between 20 and 25,000 r.p.m. or 150 and 170,000 r.p.m. While it has been pointed out by others, it is worth reemphasis that the important feature of increased operating speeds is the instrument surface speed in feet per minute rather than the revolutions per minute of the instrument. To produce an instrument speed of 5,000 feet per minute, for example, for possible maximum cutting efficiency, it has been pointed out that,[31] "a ¾ inch disc must attain 30,000 r.p.m. and a 1/16 inch diameter bur or stone about 300,000 r.p.m." This illustrates the significance of instrument size and its relationship to speed of rotation. Conversely, it illustrates, as is recognized from practical experience, that increased operating speeds are less desirable or necessary when large instruments such as diamond wheels or discs are employed. Since a large percentage of the operation is usually performed with small burs, diamond or carborundum instruments, the increased operating speed is in order. Certainly the idea of increased operating speeds for the sake of speed of operation alone is contraindicated. If increased operating speeds are to be employed, the same care and caution in preserving the patient welfare and remaining tissues must be displayed as when operating at reduced speeds.

Handpieces designed for the ultra high speed range of operation have been enthusiastically employed by dentists in practice.[27-30] While these instruments have a phenomenal quality of cutting tooth tissue effectively and the patient response is generally good, others in the profession direct a well placed word of caution against the over-enthusiastic adoption of ultra high speed instruments to the exclusion of more conventional instruments and operating speeds. Several reasons exist for this cautious approach. For example, it is generally agreed that some change in concept is necessary regarding proper instrumentation when ultra high speeds are employed. This may demand some training and the development of new skills. The sense of cutting perception is extremely delicate when operating at speeds of more than 100,000 r.p.m. When operating in this range of speed, it is mandatory that an adequate quantity of coolant be directed on the cutting instrument. Insufficient histologic studies have been described to indicate that the pulp response is no greater than when the same instruments are employed at slower speeds. It can be reasoned that if adequate coolant is used, and the patient displays no discomfort, then the pulp damage would be negligible. While the clinical response has been generally good, more histologic evidence is desirable in relation to ultra high speed operations.

Most dentists who now use ultra high speed equipment for a large part or all of their operations on tooth tissue have progressed to this stage after becoming thoroughly familiar with the operating features, advantages, and disadvantages of the intermediate high speed range of operation. Many use the ultra high speed instruments in conjunction with handpieces designed for lower speed ranges. It is believed that the inventor initially visualized the ultra high speed handpiece being used interchangeably with and in conjunction with handpieces that perform certain finishing or prophylactic operations most effectively at lower speeds.

It would seem good advice, therefore, for the general practitioner who is not yet experienced with rotary instruments operated at increased speeds to act with caution regarding ultra high speed instruments. Probably at this time he should consider the ultra high speed instrument in addition to the more conventional handpiece rather than a complete replacement for that instrument. This suggestion does not always satisfy the dentist who wishes to get into the use of increased operating speeds with his ro-

tating instruments. The fact remains, however, that if only one type of increased speed handpiece is to be selected, in preference to two companion instruments, the somewhat more conservative approach may be more satisfying to the general practitioner.

The reasons for this conservative recommendation are numerous. First, the dentist will have most of the benefits associated with increased operating speeds and a minimum of disadvantages. Several fine handpieces and contra-angles of both friction bearing and ball bearing type are available which will give splendid service within the operating ranges recommended. The choice of instruments and the technic of operation need not be radically changed with intermediate operating speeds, although it is recognized that the function of the instrument and flexibility of operation are potentially extended. After the dentist has become thoroughly familiar with the features of intermediate speed operations, he can better judge for himself if he wishes to add the ultra high speed facilities, at which time further refinements and improvements probably will have occurred in instruments to be selected.

SELECTION AND APPLICATION OF COOLANTS

With the introduction of faster operating speeds for rotating instruments and with a change in concept regarding the choice of cutting instrument and rate of tooth tissue removal, there has been the recognition that the effectiveness and manner of applying coolants to the area being cut are of major importance. The profession recognizes the need for preserving the most favorable physiologic condition, with a minimum of trauma developed during the cutting operation with rotary instruments at increased speeds.

As a portion of the recent presentation of the University of Illinois Ninth Telephone Extension Program, on High Rotary Speeds in Dentistry, John Spence[32] stated that, "The perfect method for preparing teeth to receive restorations does not exist, . . . The crux of the problem lies in the necessity for excavating rapidly and in a manner that not only provides acceptable cavity form, but also in a manner compatible with biologic and emotional considerations relative to the patient. The restorative dentist, however, is committed to the principle that the conservation of the vitality of the pulp is of cardinal importance in all operative procedures." With this fundamental concept in mind, it is imperative that the general practitioner recognize that the use of a coolant in conjunction with increased operating speeds is essential, and the method of choice should be based on effectiveness of the coolant and the practical convenience of operation in the particular practice plan of the individual dentist.

The basic need for and desirability of the application of a coolant to the area being cut by rotating instruments were recognized and advocated long before the introduction of increased operating speeds.[33-36] The only change now is that with increased operating speeds it is an essential part of the procedure. Numerous types of coolant and methods of application have been advocated.[37-39] So long as the area of operation is effectively and conveniently maintained at near normal body temperature, it would seem that the manner or mechanism of application is somewhat secondary in importance.

One of the simplest, and perhaps the most practical and effective, practices for some dentists is to ask the chair-side assistant to direct a generous stream of air or water over the area of operation. Since the water is more effective than air, it would be desirable to use water for all but the simplest operations of tooth tissue removal. For many dentists this simple manual practice of applying the coolant is not convenient and an automatic applicator is preferable, particularly with high speed operations.

It is generally recognized that air, air-water spray mixtures, or a water stream

represent the three popular practices for cooling the operating area. Several manufacturers have recently introduced units which conveniently supply either of these forms to the handpiece tip. Many manufacturers of handpieces, recognizing the need for a coolant to be directed on the area being cut, have incorporated the coolant tube as a part of the handpiece tip. Each of these units has certain merits of convenience that will appeal in various ways to different dentists.

At the last annual meeting of the A.D.A. in Atlantic City in October 1956, a report was presented on the "Effectiveness of Water Coolants with Rotary Cutting Instruments."[40] The purpose of the report was to describe the relative effectiveness of "water applied as a water-air spray mixture and as a stream to small burs and diamond instruments when operated at speeds of 30,000 to 170,000 r.p.m., with a force on the cutting instrument of two to eight ounces." Previous studies have been reported which show that air alone is much less effective than either water or water-air mixtures.[41]

Using both commercially available equipment and laboratory facilities to apply the water stream or air-water spray to the cutting area, it was determined that both the water-air spray and the water stream are effective in keeping the temperature rise to a minimum during the cutting operation. Small instruments operated at speeds of 30,000 r.p.m. or 170,000 r.p.m. and an applied force to the instrument of less than 8 ounces develop a temperature rise within the tooth of less than 15°F., varying with different cutting instruments, speeds, and pressures. This study revealed that excessive temperature rise may be experienced when large diameter instruments or excessive forces are applied, with increased operating speeds, even though a water coolant is employed.

From this study of effectiveness of water coolants it was concluded that the choice between a water-air spray and a water stream might be "more likely determined on the basis of individual choice, convenience, better vision, or other such quality, than because of inadequate cooling by either one of the methods." Where large volumes of water are passed over the area of operation, the removal of the water from the mouth becomes a problem. The "washed field technic"[42,43] and the use of the "Hydroceptor" have been designed to accomplish the evacuation of the water from the area. For those who prefer to use generous quantities of water in the operating area, it would seem that these technics might have merit. Many dentists feel, however, that the flexibility of operation and the simplicity of the water-air spray attachments make it the method of choice.

ADVANTAGES AND DISADVANTAGES TO INCREASED OPERATING SPEEDS

The reports by Doerr,[44] Ingraham and Tanner,[45] McEwen,[30] and others[27,46,47,48] have described the advantages as well as the disadvantages to increased operating speeds for rotating dental instruments. From these experiences it seems apparent that motor driven rotary instruments of the diamond and carbide type operated at either medium or ultra high speed with the application of adequate water-air spray or water stream coolant offer definite advantages to both the patient and the dentist. As was pointed out by the panel of the University of Illinois Telephone Extension Program, the "efficiency of operations and excellence of work done, coupled with reduced trauma to the pulp and with a control of the vibration factor are some of the marked benefits" to be obtained from operating at increased speeds. The panel also felt that the choice of high or ultra high operating speed is a "personal equation, based on equipment 'choice,' and the operator's ability to maintain control in dental preparations."

The adoption of increased operating speeds necessitates changes in older equipment or the purchase of new items. The service life of equipment and handpieces is governed to a large degree by the care

(Continued on page 26)

CHICAGO DENTAL ASSISTANTS ASSOCIATION

Applications for the seventh Extension Study Course to be held at Northwestern University, Dental School are now being accepted by the Chicago Dental Assistants Association.

The first class starts September 11, 1957 at 6:30 P.M. and each Wednesday thereafter until the 104 hour course has been completed. Subjects covered are: Office Management, Chair Assisting, Sterilization and Bacteriology, Local and General Anesthesia for Oral Surgery, Dental Roentgenology, Oral Hygiene, Pedodontia, Diet and Nutrition, Pharmacology, Laboratory Procedures. Cost of the course is forty dollars.

Those wishing to enroll in the course should complete the form below and return it to the chairman of the Education Committee—Dorothy Sutton, 421-B S. Taylor Ave., Oak Park, Illinois.

Enrollment will be limited to twenty-five students. Applications will be accepted in the order received. No applications will be accepted after August 15, 1957.

Name of Applicant_____ **Telephone**_____

Home Address_____

Name of Employer_____ **Telephone**_____

Address of Employer_____

Are you a member of the Chicago Dental Assistants Association? Yes____ **No**____

If a member, state approximately month and year you joined._____ _____
month year

State number of years you have been employed in an ethical dental office._____

I hereby make application to be registered for the seventh Extension Study Course to be given by the Chicago Dental Assistants Association. My fee for registration accompanies this application.
Registration Fee: $10.00

Signed_____
Assistant

NEWS OF THE BRANCHES

North Side

The hum of the air-conditioner about the North Side dental offices indicates that many of the boys are still on the job in spite of hot weather and Julyitis. In keeping with making life more pleasant in hot weather, Elmer Mertes, Tom McAuliffe, Harry Kent, Andy Sauer, Sr. and Jr., I. Jacobson, Jack Schwartz, *et al* were proudly displaying the new elevator installed in their two-story office building. At least the patients won't have any difficulty calling out their floors. It's a short haul but a pleasant one. On longer hauls, we have Henry Parkin going to Las Vegas and California, Earl Elman to the Rockies, Bob Heurlin to northern Minnesota, and then there's the trans-Atlantic Group. Among the gladiators wrestling with travel folders and European reservations for the Rome meeting are Ed Walker, Walter Nock and Paul Brown, the latter continuing on to Israel to read a paper at the First Israeli Dental Meeting. . . . The Branch extends best wishes for a speedy recovery to K. C. Peterson who recently had an abdominal operation. . . . The Jules Hazelkorns are doing their bit to keep the human race from extinction by presenting the world with their fourth child. . . . The Carl Sudakoffs have just presented a boy and the Harold Rabins are awaiting their number two child. . . . The Uptown Dental Forum takes this opportunity to invite all Chicago Dental Society members to their Golf, Swim and Dinner Outing at Chevy Chase Country Club on Wednesday, July 24th. Please call Joe Ambrose at ROdney 4-7606, for tickets, since a definite advance reservation is required by the Club. Speaking of the Forum, the summer months and vacations have in no way decreased the activity of this group. Meetings are still well attended, and excellent speakers are scheduled throughout the summer. All dental society members are cordially invited to attend Friday noon at the Hi Ridge Y.M.C.A. A guest of Bob Margolis at a recent meeting was a charming woman dentist, Dr. L. Ramirez of Manila, P. I.—*Herb Krummel, Associate Correspondent.*

West Suburban

Deadlines, Text, and Do's and Don'ts were the subject of a talk by Elmer Ebert to branch correspondents at the Chicago Dental Society conference for Presidents, Secretaries and Correspondents on June 26th. At this meeting our own Bill Vopata gave a most interesting talk on the A.D.A. Relief Fund, and How it Works Locally. . . . Congratulations to Bill on his talk, and good luck as keeper of the C.D.S. funds. . . . Bernard Meehan gives advice to all members to check up on their fire insurance coverage, and watch those open flames in the office. His recent office fire resulted in a 95% loss we are informed. Sharing the side effects of the Meehan fire, Bill Raleigh has been trying to rid his office of smoke damage. . . . How can we keep this Bob Atterbury out of the news? He was recently elected President of the Chicago Academy of Dental Psychosomatics. Keep it up Bob, we are proud of you—besides we need the news. . . . Paul Swanson is planning on the Rome meeting and perhaps a little European antipasto. . . . Bill Sisson, John Frymark and Bob McDonald were on the ball at the CDS golf outing. . . . Dave Thompson, with sons Dennis and Dean, has been giving the Canadian fish a work out. . . . John Poronsky is back at work after two weeks with the reserves at Camp Carson, Colorado. . . . Chuck Mikolas has been enjoying himself at the Hofrichter farm where they have an extra fine deep well. . . . Tuesday, July 23rd, is the date the Franklin Park Study Club will meet at Club Hollywood at

noon to hear Roy F. Nix speak on "The Dentist and the Law." . . . Bob Krvavica is in his new office building on Cass Ave. in Westmont. . . . Frank Novak of Downers Grove is spending his vacation at Lake Geneva. . . . Sure would like to have some news from our "What's My Line" star, Gloria Alessio. . . . To Frank Biedka—How is the North Dakota oil? And how was that Florida trip? . . . Bill Burch must be doing something in Elmhurst worthy of space in this column? Anything, just anything is worthy of space in *this* column. . . . Haven't heard from Les Butler of late—hope he has completely recovered from all his difficulties. . . . Wonder what is new with Bob Cutlan —is he in his new office yet? Haven't seen him since he was in charge of the NUDS class room at the Midwinter. . . . Drove past Mike Gaudio's new home on Dee Road—sure is a dandy. . . . Hope to see John Ronning and some of the rest of you WSB members at the Wisconsin Study Club meeting at Madison in August. . . . Your correspondent will play host to his parents this month when they return to this area from Phoenix, Arizona to celebrate their Golden Wedding. —*John W. Silberhorn, Branch Correspondent.*

Englewood

"What is so rare as a day in June," well the Chairman of the C.D.S. annual golf outing picked the rare one this year for our affair at Glendale. Many familiar faces were there from Englewood. President John Seaborg drove out in Earl Harris' little Thunderbird (don't mention birds to John). Judging by the number of sports cars in the lot, many dentists are getting down to earth. Also in attendance were Henry Mathews, our genial Secretary, Dick Davido, Ed Serr, P. J. Stransky, Bill Lexa, George Runyan, Ray Van Dam trio, Paul Kanchier and Vince Milas. Lucky prize winners were: Stransky, Runyan, Harris, Seaborg and Milas. . . . Englewood mourns the loss of its esteemed member Franklin Clemmer who passed away in Alexandria, Va. Burial services were held in Chicago. Dr. Clemmer served as Englewood President in 1924-25. As Editor of the *Illinois State Journal* he was responsible for its growth from a small newsletter to the well proportioned Journal of today. Old Timers will remember him as the originator of the graduating class exercises. Our sympathy is extended to his family. . . . PROUD PAPA'S DEPT. Paul Kanchier's daughter, Barbara, a graduate at N.U. School of Speech, will teach at the Oak Lawn Commercial School in the fall. Tom Starshak's daughter, Mary Kay, was a graduate at St. Mary's Notre Dame. It is my happy privilege to report the graduation of Marine Lieut. James Milas at Officers Candidate School, Quantico, Va., and also announce his marriage on June 12 to Rita Andreas, niece of Chuck Andreas of East 79th St. The newlyweds are residing at Fredericksburg, Va. . . . MEN ON THE GO—While some of our members simmer in the city I am happy to report that some will summer in the country. Francis O'Grady is cutting his office time to two days per week and spending the other five days with his family at Paw Paw Lake, probably cutting his lawn! Lester Kalk and family at Vassar, Mich.; the Paul Kanchier family at New Buffalo miles away from neighbors; Ed Werre vacationing at his Palace on the Fox in Algonquin; Ray Van Dam heading for California after entertaining the Sanders group celebrating his retirement as President; George Runyan back from Florida; John Lace spending June (and more) at his Sarsasota, Fla. home. Since John bought a new motor for his boat we might call him "Magellan" Lace. Joe Plewa is dreaming of his im-

(Continued on page 29)

PROFESSIONAL BUDGET PLAN

District Manager

FRED C. BOFINGER

® 9441 South Oakley, Chicago 20, Illinois

For Sublease: Dental office Old Orchard Professional Building, Skokie, Illinois. Equipped operating room or unequipped operating room. Suite includes reception room, business office, private office and laboratory. STate 2-3980.

SITUATIONS WANTED

NEED OFFICE HELP, DOCTOR? Need an experienced chairside assistant? Or, would you prefer an eager-to-learn BEGINNER for training YOUR way? In either case, 'phone us. We are employment counsellors to the dental and medical professions. Our city-wide placement service is FREE to the employer. Your inquiry will be handled in confidence. There's no obligation. ASSOCIATED MEDICAL PERSONNEL BUREAU, 17 North State Street. Telephone ANdover 3-3438.

DENTAL ASSISTANT — While attending day school—this attractive young woman took night courses at one of our University Dental Schools. She has also been employed in a one-girl-dental-office. She has the ability to handle the general office work (Types: 60 wpm—Shorthand: 80 wpm—filing and reception). For further information on the above applicant and many others call GARLAND MEDICAL PLACEMENT — 25 E. Washington Street. ANdover 3-0145.

DENTAL TRAINEE—"Pert—slim—neat as a pin and mature for her years" are the remarks I found on this 20 year old's application. Her counsellor states she specifically requested a Dental office and she feels this applicant has excellent potential. Able to type well—very anxious to be taught to assist. For further information on above applicant and many others call GARLAND MEDICAL PLACEMENT—25 E. Washington Street, ANdover 3-0145.

POSITION WANTED: Dental Hygienist looking for position on North Side of Chicago or suburb. Call WHitehall 4-5452.

WANTED

Wanted: Dentist with Illinois license to spend 5 days a week in loop office during August while I am out of the country. Call CEntral 6-2171.

ASSOCIATION WANTED

Association Wanted: Would like a full time association with an older practitioner intending to retire. North Shore practice preferred, will work for and later buy equipment and good will. Service obligation completed. Call INdependence 3-4471.

HELP WANTED

Southwest Side Dental Office: Dental assistant, experience preferred, chairside assisting only. Call SPring 7-6903.

X-RAY SERVICE

ATTENTION! ORTHODONTISTS: The American Dental X-Ray Laboratory, Suite 1450, 55 E. Washington, is now equipped to take Cephalometric Headplates. E. M. Anderson, FRanklin 2-8525.

MISCELLANEOUS

Medical and dental papers, manuscripts and articles edited, revised, proofread and prepared for printing or for platform presentation by former editor of national professional publication. Reasonable rates. Address N-24, The Fortnightly Review of the Chicago Dental Society.

APPLICANTS FOR MEMBERSHIP

LENELL, LOUIS M. (U. of Ill. 1946) Northwest Side, 2511 N. Kedzie Ave. Endorsed by Chester E. Toton and Harold Rabin.

MEDLEY, CONNELL C. (U. of Ill. 1953) North Suburban, 4 S. Genesee St., Waukegan. Endorsed by George E. Krueger and O. Kenneth Johnson.

DSB

THE DOCTORS' SERVICE BUREAU

provides

CAREFUL AND ETHICAL SERVICE
for Dentists and Physicians

FREE CREDIT REPORTS
To control losses

FREE LETTERS TO DELINQUENTS
To collect slow accounts at no charge

A COLLECTION SERVICE
At less than 25% on average

THE DOCTORS' SERVICE BUREAU • CEntral 6-3787 • 201 North Wells St.

(Continued from page 17)

and maintenance it receives, as well as the operating speed. In general it may be said that the care of equipment, control of operation, and mastery of technic become more precise in proportion to the increase in operating speeds.

In order for an instrument, a method, or a technic to appeal to the profession, it must be practical in every respect and possess a high degree of flexibility of application. It seems that developments which have occurred in modern dental instruments and methods can be compared to the automobile and methods of travel. Both may be potentially dangerous if used without skill and good judgment, but when properly handled, they can be very satisfying.

SUMMARY

As a summarizing statement, it seems worth repeating, even though it has been stated before,[40] that "at the present time, the use of rotary instruments at increased operating speeds presents many more advantages than disadvantages both to the patient and to the operator. It is evident that fine operative dentistry can be done with the rotating instruments that are now available without resorting to auxiliary instruments of the non-rotating type. It seems evident that additional refinements in instruments will continue to occur. Further refinements in technics and concepts of operation also will likely be developed. Safe and effective technics are now available for the use of increased operating speeds. Finally, it is believed that so long as good, sound, basic principles are observed in the shaping of cavities with rotating instruments, the choice of the instrument used for that purpose may be somewhat secondary in importance." If the general practitioner continues to adhere to the principles of good dentistry which he has practiced in the past, he will have served his profession well.

BIBLIOGRAPHY

1. Peyton, F. A. Evaluation of rotary type instruments. Current advances in dentistry. High rotary speeds in dentistry. Univ. of Ill., Coll. of Dent. 9th Tel. Ext. Program. Manual. p. 17, c1956. Univ. of Ill. Press. 114 pp.

2. Black, R. B. Technic for nonmechanical preparation of cavities and prophylaxis. J.A.D.A. 32:955, Aug. 1945.

3. _____. Airbrasive: some fundamentals. J.A.D.A. 41:701, Dec. 1950.

4. James, V. E., Schour, Isaac, and Spence, J. H. Response of human pulp to gutta-percha and cavity preparation. J.A.D.A. 49:639-50, Dec. 1954.

5. Epstein, Sidney. Analysis of air abrasive procedures in dental practice. J.A.D.A. 43: 578, Nov. 1951.

6. Taylor, A. R. The airdent and I. J. New Jersey Dent. Soc. 23:13, July 1952.

7. Morrison, A., and Berman, L. Evaluation of airdent unit. J.A.D.A. 46:298, Mar. 1953.

8. Phillips, R. W., and Paffenbarger, G. C. Research on dental materials. J.A.D.A. 52: 426, Apr. 1956.

9. Black, R. B. Application and revaluation of air abrasive technic. J.A.D.A. 50:408, Apr. 1955.

10. Oman, C. R., and Applebaum, Edmund. Ultrasonic cavity preparation II. Progress report. J.A.D.A. 50:414, Apr. 1955.

11. Council on Dental Research. Ultrasonics in dentistry. J.A.D.A. 50:573, May 1955.

12. Lefkowitz, William. Ultrasonics in dentistry. J.A.D.A. 52:406, Apr. 1956.

13. Nielsen, A. G., Richards, J. R., and Wolcott, R. B. Ultrasonic dental cutting instrument. I. J.A.D.A. 50:392, Apr. 1955.

14. Nielsen, A. G. Ultrasonic dental cutting instrument. II. J.A.D.A. 50:399, Apr. 1955.

15. _____. Additional reports on the biologic response to ultrasonic vibration cutting. 97th Ann. Session. A.D.A. Oct. 2, 1956.

16. Hansen, L. S., and Nielsen, A. G. Comparison of tissue response to rotary and ultrasonic dental cutting procedures J.A.D.A. 52: 131, Feb. 1956.

17. Friedman, Joel; Lite, Theodore; and Solomon, Harold. Pulp reactions to ultrasonic tooth preparation. N. Y. J. Dent. 26:144, Apr. 1956.

18. Zach, Leo, and Brown, G. N. Pulpal effect of ultrasonic cavity preparation. Pre-

liminary report. N. Y. State Dent. J. 22:9, Jan. 1956.

19. Zinner, D. D., and Whetstone, W. L. The ultrasonic dental unit in pedodontics. J. Dent. for Children, 23:1st Quarter, 3-12, 1956.

20. Healey, H. J., Patterson, S. S., and Van Huysen, Grant. Pulp reaction to ultrasonic cavity preparation. U. S. Armed Forces Med. J. 7:685, May 1956.

21. Straub, A. W. Improvement in instruments for giving motion to tools. U. S. Patent No. 154,569. Sept. 1, 1874.

22. Laurence, Henry. Improvement in dental engines. U. S. Patent No. 213,909. Apr. 1, 1879.

23. Norlen, P. I. Dental engine for compressed air. U. S. Patent No. 2,618,064. Nov. 18, 1952.

24. Nelsen, R. J., Pelander, C. E., and Kumpula, J. W. Hydraulic turbine contra-angle handpiece. J.A.D.A. 47:324, Sept. 1953.

25. Nelsen, R. J. Clinical application of new hydraulic turbine handpiece. 96th Ann. Session, A.D.A. San Francisco, Oct. 19, 1955.

26. Peyton, F. A. Evaluation of dental handpieces for high speed operations. J.A.D.A. 50:383, Apr. 1955.

27. Kilpatrick, H. C. Trauma reduction in cavity preparation utilizing rotational speeds in excess of 60,000 r.p.m. Dent. Digest 62:202, May 1956.

28. McEwen, R. A. Clinical observations of super speed (150,000 r.p.m.) cutting instruments for one year. 97th Ann. Session, A.D.A. Atlantic City, Oct. 1956.

29. _____. Clinical observations of 150,000 r.p.m. or greater. Current advances in dentistry. High rotary speeds in dentistry. 9th Tel. Ext. Program. Manual. p. 31, c1956. Univ. of Ill. Press. 114 pp.

30. _____. The use of rotary instruments at ultra high speeds. Ga. Dent. A. J. 29:10, Apr. 1956.

31. Henchel, C. J. Clinical evaluation of high speed rotating instruments. (Abstract) J. Dent. Res. 35:968, Dec. 1956.

32. Spence, J. M. High rotary speeds in dentistry. Current advances in dentistry. 9th Tel. Ext. Program. Manual. p. 15, c1956. Univ. of Ill. Press. 114 pp.

33. Bronner, F. J. Some studies on pulp and dentin reaction. Dent. Cos. 74:535, June 1932.

34. Jeserich, P. H. Factors necessary to minimize thermal changes in tooth structure from operative procedures. N. Y. J. Dent. 5:275, Dec. 1935.

35. Bodecker, C. F. Demonstration of possible ill effects of heat on the pulp caused by

25 Years
PROFESSIONAL MEN ONLY

- An experienced service helping doctors save time and money
- Business problems
- Income taxes
- Office systems and records
- Auditing

J. P. REVENAUGH, Pres.
59 E. MADISON ST.

PROFESSIONAL
BUSINESS
MANAGEMENT
STATE 2-2282

Malpractice Prophylaxis

PREVENTION + DEFENSE + PROPER PROTECTION AGAINST LOSS

Specialized Service makes our doctor safer

THE MEDICAL PROTECTIVE COMPANY
Fort Wayne, Indiana
Professional Protection Exclusively Since 1899

CHICAGO Office:
T. J. Hoehn, E. M. Breier, W. R. Clouston and D. D. Martin, Representatives
1142-44 Marshall Field Annex Bldg.,
Telephone State 2-0990

rapid operative technic. J.A.D.A. 26:527, Apr. 1939.

36. Henchel, C. J. Heat impact of revolving instruments on vital dentin tubules. J. Dent. Res. 22:323, Aug. 1943.

37. Sherman, J. A. The vajor spray method for control of pain. Canad. Dent. A. J. 13:11, Jan. 1947.

38. Killilea, J. F. Air conditioned handpiece. J.A.D.A. 32:966, Aug. 1, 1945.

39. Thomas, B. O. A. Effectiveness of chilled burs in eliminating pain. J. Dent. Res. 20:361, Aug. 1941.

40. Peyton, F. A. Effectiveness of water coolants with rotary cutting instruments. 97th Ann. Session, A.D.A. Atlantic City, Oct. 1956.

41. _____ Temperature rise in teeth developed by rotating instruments. J.A.D.A. 50:629, June 1955.

42. Thompson, E. O. Clinical application of the washed field technic in dentistry. J.A.D.A. 51:703, Dec. 1955.

43. _____ The washed field technic in operation management. Current advances in dentistry. High rotary speeds in dentistry. 9th Tel. Ext. Program. Manual. p. 25. c1956. Univ. of Ill. Press. 114 pp.

44. Doerr, R. E. The use of increased speeds for rotating instruments. Mich. S. Dent. A. J. 37:181, Sept. 1955.

45. Ingraham, Rex, and Tanner, H. M. Adaptation of modern instruments and increased operating speeds to restorative procedures. J.A.D.A. 47:311, Sept. 1953.

46. Beebe, D. M. Efficiency of high operating speeds with water lubrication in cavity preparation. J.A.D.A. 49:650, Dec. 1954.

47. The Chicago Academy of Dental Research, High Speed Committee. High speed and super speed. Ill. Dent. J. 25:763, Dec. 1956.

48. Bruner, F. W. "High speed" in pedodontics. J. Dent. for Child. 23:175, 3rd Quarter, pt. 1, 1956.

NEWS AND ANNOUNCEMENTS

(Continued from page 8)

JOURNAL OF THE AMERICAN DENTAL ASSOCIATION. The application has a map of the Miami area and a listing of hotels and their rates.

In addition to forums, the scientific program will include half-day panel discussions on practical endodontic technics, periodontal disease, the future of dentistry, x-radiation in the dental office, treatment of the partially edentulous, current status of drugs in dentistry, use of restorative materials, care of chronically ill, practical approaches to dentistry for children and occlusion.

The program will also include color television clinics. Operative procedures at the Dade County Dental Research Clinic will be televised on large screens at Dinner Key by the Smith, Kline and French Laboratories. There will be two-way communication to permit members of the audience to ask questions of the various clinicians.

As a new subject, the scientific program will include a clinic on making motion pictures and slides.

Additionally, there will be some 200 table clinics and 40 clinics projected on large screens, as well as motion pictures and scientific exhibits.

For the first time, the essay program will open on Monday morning, Nov. 4, the opening day of the session and for the first time in five years, the essay program will be offered on the final morning of the session, Thursday, Nov. 7.

CALL US FOR NEY GOLD & TECHNIC



CEntral 6-0791

JEANNE WILKINSON
MANAGER, CHICAGO OFFICE
PITTSFIELD BUILDING, 18th FLOOR

JACK REINHARDT
TECHNICAL REPRESENTATIVE

The J. M. NEY COMPANY
GOLD
Since 1812

(Continued from page 20)

pending trip to the Canadian Rockies this August. Congratulations to the Jim Nowlans celebrating their 25th anniversary on July 6th. That "honeymoon" trip took place this spring to Hawaii. Look out for Al Tanis when he's behind the wheel—rumor is that he learned a few tricks at the Indianapolis races. Orchids to Joe Kuschell on passing the California Board. . . . MEN ON THE MOVE—John Manning now at 107th and Western; Oscar Johnson at 111th and Michigan; F. W. Towner, formerly with George Runyan, opening his office in Elgin. It is rumored that there will be wedding bells soon. Best o' luck to all of them. . . . Have a nice summer and mail the nooze to "Boss" Brooks. For all you lovers of the outdoors I quote from the Bible—Proverb 30:25, "The ants are people not strong, yet they prepare their meat in the summer." A summer resort is defined as a town where the inhabitants live on your vacation money until the next summer.—*Vincent B. Milas, Associate Correspondent.*

Kenwood-Hyde Park

A few Kenwood-Hyde Park men decided to condition themselves for the future long trips. Elmer Ebert reports that the following gentlemen, himself included, arrived at Glendale Golf Club for the C.D.S. outing at various hours on the 19th of June. Bob Kreiner played golf but should have been fishing instead —Willard Johnson drove out partly to break in his new Buick convertible—a real dream boat, I hear. Rudy Grieff also drove out to join the fun and condition himself for his trip to Rhinelander over the 4th. Tashiro walked off with a Blind Bogey Prize (whatever that is). The trip to Glendale was nothing to Johnny McBride after so many trips to Mississippi or is it Louisiana? Howard Harvey, of Clarendon Hills now, had the shortest drive of all, and equally short on the fairway. Thanks, boys, for the Kenwood-Hyde Park representation. . . . Smiling Bob Wells just back from Kalamazoo reports that his son Richard was a recipient of a B.S. degree from Western Michigan University. Richard's wife and three kiddies were mighty proud too. . . . Ascher Jacobs and family decided to go south for the summer (2 weeks of it) place—Miami Beach, of course. Guess it is a test run for the A.D.A. Meeting next Nov. . . . We hear that Barney Nathan is feeling fine again. He had the happy occasion to give his son, Ira, to the former Beth Rosin. Best wishes. . . . Bill DeLayre and the Mrs. are expecting any day now and the blessed event will no doubt beat this notice to press. Good luck! Wm. Giles just got back from a trip to Pa. . . . Ben Herzberg left for Europe, June 3 to give lectures in six

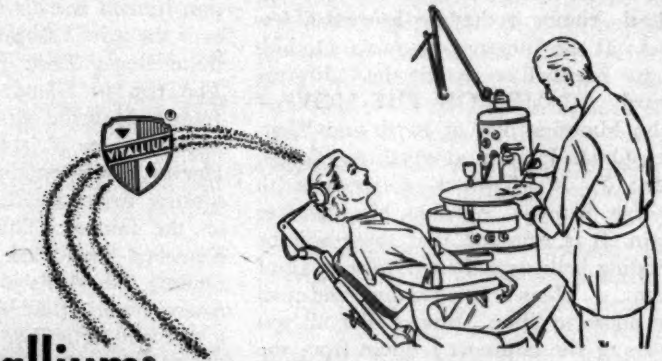
(Continued on page 32)

"just a real good lab" moderately priced

myer a. WILK

Prosthetic Technicians

30 W. Washington St. CE 6-4338-4339



Vitallium®...Advancing with the Arts and Sciences of Oral Reconstruction . . . Internal Fixation . . . Bone and Joint Replacement.



FOR ADVANCED PROSTHETICS PRESCRIBE...

Vitallium CUSTOM-CRAFTED PARTIALS

® By Austenal, Inc.

In the Chicagoland Area

you can secure genuine **VITALLIUM**

PARTIALS *from the following laboratories*

ANNEX DENTAL LABORATORY
25 E. Washington Street — STate 2-5177
CHICAGO 2, ILLINOIS

AUSTIN PROSTHETIC LABORATORY
5944 W. Madison Street — AUstin 7-3238
CHICAGO 44, ILLINOIS

EHRHARDT & CO.
32 W. Randolph Street — ANdover 3-6460
CHICAGO 1, ILLINOIS

JOSEPH E. KENNEDY COMPANY
8220 S. Western Avenue — GRovehill 6-5900
CHICAGO 20, ILLINOIS

STANDARD DENTAL LABORATORIES
228 S. Wabash Avenue — WEbster 9-5577
CHICAGO 4, ILLINOIS

UPTOWN DENTAL LABORATORY, INC.
4753 BROADWAY — LOngbeach 1-5480
CHICAGO 40, ILLINOIS

(Continued from page 29)
countries and to wind his trip up at the International Meeting in Rome. . . . William Rogers and Mack Tanner will have their new offices in with the Medical Associate of Chicago—Robert Kimbrough will also be associated with the group. . . . Yours truly had the pleasure of attending the Branch Presidents, Secretaries and Correspondents Conference held Wednesday, June 26th at the A.D.A. Headquarters. The meeting was held in the newly completed conference room which can be described as both magnificent and unique in design. Our own Walt Dundon presided over the meeting which proved to be worthy of the atmosphere in which it was held. Wayne Fisher and Elmer Ebert were on the Speakers' Agenda. They contributed well to the success of the meeting. Kenwood-Hyde Park is justly proud of its active and honored constituents—Our President, Graham Davies, and Secretary, Howard Harvey, were studiously absorbing the important points of discussion. After a fine luncheon at the Pearson a tour was made through the new A.D.A. building. Members of Hyde Park should make a special effort to see the very interesting functions of the A.D.A. in action so that they will have a better understanding and appreciation of their membership in the A.D.A.—*Henry H. Leib, Branch Correspondent.*

West Side

The conference for Branch Officers and Correspondents, given by the Chicago Dental Society, was held June 26th at the new board room of the American Dental Association Headquarters Building. This room is a thing of beauty and definitely one of the outstanding of its type in the country. It was a gracious extension of hospitality on the part of the ADA and we felt privileged to be present. The conference was opened with a greeting from the president of the Chicago Dental Society, Walter E. Dundon, and was followed by such distinguished speakers as Harold Hillenbrand, Secretary of the ADA, Wayne L. Fisher, Chairman of the Joint Policy Committee, Elmer Ebert, Editor of the FORTNIGHTLY REVIEW, Karl Richardson, Executive Secretary of the Chicago Dental Society, and officers of the Chicago Dental Society, Ernest Goldhorn, Secretary, William O. Vopata, Treasurer, and James N. Lynch, Vice-president. We became acquainted with the numerous organizational activities of both the CDS and the ADA. After the conference a luncheon was held in the Garden Room of the near-by Pearson Hotel. Finally there was a group tour through the ADA building for those who hadn't seen the truly fine architectural accomplishment of the addition to the ADA headquarters. . . . Of especial interest to our branch is the fact that the ADA has a Relief Fund. This ADA Relief Fund is available to any dentist of indigent circumstances. If anyone knows a fellow dentist (whether he or she does or does not belong to the ADA) that may be in need of assistance, here's an opportunity to help in a tangible way. All that is necessary is to apply to the Relief Fund of the ADA. Sounds like a commercial. . . . Leo Cahill plans to leave for the International Dental Congress in the early part of August and will fly to Ireland on the first leg of the trip. After a week in Ireland, he'll go to England to meet the Chicago contingent of dentists who will arrive by ship. From there the group will go to Rome via the principal cities and countries of Europe. . . . A toast to Maurice and Mrs. Perlin on the occasion of their golden wedding anniversary June 30th. To both of you the best of health and continued happiness. . . . John Reilly has a dandy place up at Twin Lakes for his vacation. Have a good time John and keep that golf game sharpened. . . . Bill Kaiser and Bill Bingaman are up in Boulder Junction, Wis., to do a little fishing. . . . Most sincere condolences to Sam Kretshmer on the death of his beloved mother. . . . Please don't deliberate too long on signing up for the Eli Lilly trip. . . . See you soon.—*Andrew J. Kelleher, Branch Correspondent.*